

REMARKS

This application has been reviewed in light of the Office Action dated May 15, 2007. In view of the foregoing amendments and the following remarks, favorable reconsideration and withdrawal of the rejection set forth in the Office Action are respectfully requested.

Claims 10-22 are pending. Claims 10, 12-18, 21 and 22 have been amended. Support for the claim changes can be found in the original disclosure, and therefore no new matter has been added. Claims 10, 18, 21 and 22 are in independent form.

Claims 10-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,331,048 (*Takizawa*).

Without conceding the propriety of the rejection over the prior art, the independent claims have been amended. Applicant submits that the amended independent claims are allowable over the cited art, for at least the reasons set forth below.

Independent Claim 10 recites, *inter alia*, an array of printing elements provided along one long side of an ink supply opening and divided into a plurality of groups of printing elements, an array of driving circuits provided along one long side of the ink supply opening and arranged to correspond to the printing elements, respectively, for driving the corresponding printing elements, respectively, wherein data supply means comprises a plurality of shift registers, the plurality of shift registers are provided at one side with respect to extension lines extending from both longitudinal ends of the ink supply opening, and each shift register is arranged to supply driving data to one or more of the driving circuits for driving the corresponding printing elements, of the plurality of groups

of printing elements, which are closer than non-corresponding printing elements to the shift register, wherein another array of printing elements, another array of driving circuits, and another selection circuit are provided along another long side of the ink supply opening, and wherein the data supply means further comprises another plurality of shift registers, provided at another side with respect to the extension lines. Each of Claims 18, 21 and 22 recites, *inter alia*, the same or similar subject matter.

Applicant's Fig. 13 illustrates an example of at least some of the above-noted subject matter of Claim 10. As shown in Fig. 13, four shift registers ("5-bit S/R") are provided, for example, at an upper left end portion, an upper right end portion, a lower left end portion and a lower right end portion, respectively, of head substrate H1100. Thus, two shift registers are provided at one side (a left side) with respect to extension lines (not shown in the figure) extending from both longitudinal ends of ink supply opening 302, and two shift registers are provided at another side (a right side) with respect to the extension lines.

By virtue of the arrangements claimed in Claim 10, driving data corresponding to an array of printing elements provided along one long side of an ink supply opening can be supplied from a plurality of shift registers provided at one side of extension lines extending from both longitudinal ends of the ink supply opening, while driving data corresponding to another array of printing elements provided along another long side of the ink supply opening can be supplied from another plurality of shift registers provided at another side of the extension lines.

For example, as shown in Fig. 13, driving data corresponding to an array of printing elements 303 provided along a left side of ink supply opening 302 is supplied from

two registers provided at an upper left end portion and a lower left end portion, respectively, of head substrate H1 100, while driving data corresponding to another array of printing elements 303 provided along a right side of ink supply opening 302 is supplied from two registers provided at an upper right end portion and a lower right end portion, respectively, of head substrate H1 100.

By virtue of the arrangements claimed in Claim 10, a wiring area extended from the data supply means including the shift registers can be reduced. In particular, the size of the head substrate in the lateral direction can be reduced.

Takizawa relates to an inkjet printhead having multiple ink supply holes. *Takizawa* teaches an arrangement in which a plurality of shift registers are provided on a single head substrate. According to *Takizawa*, each of the shift registers corresponds to a single ink supply opening and its associated heaters and transistors. For example, as shown in Fig. 1A of *Takizawa*, substrate 400 is divided into blocks 430 and 431, and a shift register 404 (left side of the figure) corresponds to ink supply hole 502 in block 430, and another shift register 404 (right side of the figure) corresponds to ink supply hole 501 in block 431. *Takizawa* is not understood to teach or suggest at least a plurality of shift registers provided at one side with respect to extension lines extending from both longitudinal ends of an ink supply opening, and another plurality of shift registers provided at another side with respect to the extension lines, as claimed in Claim 10.

Since *Takizawa* does not teach or suggest all of the elements of any of Applicant's independent claims, those claims are believed allowable over that document.

A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a

reference against the independent claims herein. These claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 102, favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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